

IN THE CLAIMS

1. (currently amended) An electronic transmission apparatus, comprising:

first and second communication means to be connected to a signal transmission line, wherein said signal transmission line interconnects a transmitting electronic device and a receiving electronic device;

authentication process means for executing a first authentication process with said transmitting electronic device via said first communication means;

decryption means for decrypting an encrypted signal ~~transmitting-transmitted~~ by said transmitting electronic device;

processing means for executing an operation process with a decrypted signal obtained by decrypting said encrypted signal at said decryption means, wherein

said authentication process means supplies key information for decrypting said encrypted signal supplied from said transmitting electronic device based on a result of said first authentication process,

said first communication means supplies said encrypted signal supplied from said transmitting electronic device connected through said signal transmission line to said decryption means and said second communication means, and

said second communication means enables said receiving electronic device to receive said encrypted signal and said key information and to execute a second authentication process with said receiving electronic device;

a section configured to receive the decrypted signal and display or record the received decrypted signal;

encryption means for re-encrypting said decrypted signal and for supplying said ~~re-encrypted~~encrypted signal to said second communication means; and

signal switching means for selecting for output to said second communication means of said encrypted signal transmitted by said transmitting electronic device and said re-encrypted signal by said encryption means in response to said second authentication process.

2. (previously presented) The electronic transmission apparatus according to claim 1, wherein

said authentication process means supplies key information for authentication of said receiving electronic device and decryption of said encrypted signal from said transmitting electronic device to said receiving electronic device based on a result of said second authentication process.

3. (cancelled)

4. (previously presented) The electronic transmission apparatus according to claim 1, wherein

said authentication process means executes said second authentication process with said receiving electronic device through said receiving communication means and supplies to said receiving electronic device said key information for decrypting said signal selected by said signal switching means based on a result of said second authentication process.

5. (previously presented) The electronic transmission apparatus according to claim 4, wherein

a signal selecting operation of said signal switching means is executed based on a selection signal supplied from said transmitting electronic device through said first communication means.

6. (previously presented) The electronic transmission apparatus according to claim 4, further comprising:

operation input means for conducting a switching operation of said signal switching means.

7. (currently amended) A signal transmission method comprising the steps of:

executing a first authentication process with a transmitting electronic device connected via a signal transmission line for connecting said transmitting electronic device and a receiving electronic device;

executing an operation process using a decrypted signal obtained by decrypting an encrypted signal supplied from said transmitting electronic device with key information supplied from said transmitting electronic device based on a result of said first authentication process;

executing a second authentication process with said receiving electronic device connected via said signal transmission line;

displaying or recording said decrypted signal;

re-encrypting said decrypted signal; and

routing the re-encrypted signal to another device via another signal transmission line; and

selecting for transmission to said receiving electronic device one of said encrypted signal and said re-encrypted signal in response to said second authentication process.

8. (cancelled)

9. (cancelled)

10. (previously presented) The signal transmission method according to claim 7, wherein

said selecting of either said re-encrypted signal or said encrypted signal supplied from said transmitting electronic device is executed based on a signal supplied from said transmitting electronic device.

11. (previously presented) The signal transmission method according to claim 7, wherein

said selecting of either said re-encrypted signal or said encrypted signal supplied from said transmitting electronic device is executed based on an operation result of an operation input means.

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (cancelled)